Annex 1 Market Research Questions
For
ESDIS Maintenance and Development (EMD) Contract

The RFI questions are categorized into 3 groups, General, Contract Performance, and Technical Performance for convenience only.

GENERAL

1) In addition to specific questions, please feel free to comment on any aspect of this RFI including overall scope and clarity of the requirement.

2) The government is considering providing an opportunity for interested contractors to come to GSFC to present their concepts and recommendation as related to this RFI. There will also be an opportunity for informal questions from the contractor. Please indicate your potential interest in participating in this interchange.

3) Please provide a point of contact for additional questions.

CONTRACT PERFORMANCE

4) The government is considering an IDIQ contract in which the corrective and adaptive maintenance functions and engineering support for ongoing analysis constitute the baseline effort. Additional effort for perfective changes will be implemented by task. Please respond as to the appropriateness of this contract arrangement and provide any recommendations for alternative contracting approaches

5) This is expected to be a Performance Based Contract (PBC). Your recommendation of appropriate performance measurements is welcomed.

6) Considering that this contract has the potential to incorporate development effort although it is primarily for maintenance, the Government is assessing the feasibility of requiring Earned Value Management on this contract. Recognizing the costs associated with requiring such a system versus the benefits, what is your opinion of utilizing Earned Value Management (see NASA FAR Supplement Subpart 1842.74)? If no, what performance management systems do you typically use on support service contracts of this nature? If yes, please describe, in your opinion, how the benefits outweigh the costs of instituting such a performance measurement system under this contract.

7) NASA has piloted Award Term contracting as a method of motivating and rewarding contractor performance in which the Award Term Contracting (ATC) evaluation and award process itself is directly analogous to the Award Fee process. However, instead of earning fee based on subjective criteria, contractors receive periodic

performance evaluations and scores, which can result in an extension of the term of the contract in return for excellent performance in addition to receiving profit in forms other than award fee (e.g., fixed fee, incentive fee, etc.). See a more detailed description of ATC at http://www.hq.nasa.gov/office/procurement/atc.html. Based on your assessment of this requirement, what is your interest in ATC versus the more traditional Award Fee process? Describe an arrangement for fee and profit that you believe would allow this requirement to be a viable business opportunity. Include a description of the cost factors that would be covered by fee, possible bases for quantifiably measurable incentive fee criteria.

8) As stated in the SOW, it is a goal of the ESDIS Project to reduce the overall cost of operating and maintaining the ECS. This requires cost trades that overlap multiple contractors and/or organizations. Provide recommendations on how the Government might construct an incentive for value-engineering changes to reduce operational and maintenance costs. Describe the information that would be needed to develop value-engineering proposals. Does the potential to share measurable operational and maintenance cost saving (in lieu of other fee arrangements) provide a real incentive to make such recommendations?

9) As part of the value-engineering concept presented in the SOW, the government is considering soliciting proposals that recommend changes to Level 3 requirements where these requirements are viewed as overly restrictive or unnecessary, and where changes to them could result in significant long-term operational or maintenance savings to the government. Please describe the benefits and pitfalls you see with this approach, and provide any recommendations you might have for improving it.

10) Provide recommendations for converting a historically performed level-of-effort requirement (i.e. hardware and software maintenance) to performance based. The Government is seeking comments on how to best quantify reliability, maintainability, and availability.

11) The SOW challenges the contractor to "reflect the overall goals and priorities of the ESDIS Project when establishing internal work priorities and recommending enhancements and modifications." The government is considering using this challenge as part of the contract's performance assessment criteria. Provide your recommendations on how this might be equitably applied to performance assessment or describe your concerns with the approach.

12) The FAR requires the Government to incorporate separate percentage goals for using small business, HUBZone small business, small disadvantaged business, and women-owned business concerns as subcontractors. Please describe the historical subcontracting goals that your company has met for each designated category on contracts similar in nature to this requirement.

Technical Performance

13) The contractor's place of performance is of a potential concern to the government. While many activities may be performed without the need to be in close proximity of the Goddard Space Flight Center, many activities requiring interaction with government personnel are best accomplished by on site presence. Further, travel time and travel cost can be major impediment to successful contractor/government interactions. Currently, the SOW does not contain a specific response time requirement, but the government believes that one is needed. Specific activities of concern include the contractor/government priority board, monthly reviews, informal weekly interactions, government test witnessing, technical exchanges, and major SOW reviews. Please provide your opinion on this subject and provide recommended response requirements.

14) The government is concerned about providing a sufficient transitional period in which the new contractor has adequate time for accepting responsibility of maintenance and development from the ECS contractor by 2002. At the end of the transition period, the contractor is required to demonstrate their ability to benchmark the system and deliver a formal release. It is anticipated that completion of the transition will be a special award fee period. Please describe a reasonable time period for transitional phase, and why. Please address your assumption and recommendations as to the appropriate role of the government and the ECS development contractor during the transition period.

15) The funding of the ESDIS activities is constrained. As such, the Project needs to continually assess priorities and levels of services that can be provided and efficient and innovative ways of achieving them. It is anticipated that the services of this contract will be constrained by annual funding limitations. In order to plan future ESDIS activities, your opinions are of interest to us. Please provide the following:

    a) Provide your recommendations how the maintenance and development of the ECS may best be approached in a cost constrained environment.

    b) Based on the SOW provided in this RFI, please provide a ROM estimate and your basic assumptions to support 'EMD Baseline Task Order – ECS Maintenance & System Engineering' (Attachment B of EMD SOW). Please provide cost by fiscal year and SOW section (e.g. 2.2). Insight into lower level (labor hours, COTS vendor, hardware vs. software, etc.) detail is desirable.

16) The government plans to incorporate into the new contract provisions and possibly requirements for technology refreshment (upgrading of the system to newer hardware and software technologies) to achieve better performance, reduce operations costs, improve services, improve product quality, or reduce risks such as loss of data. One approach would be to provide a yearly budget for hardware/software technology refreshment; another would be to consider periodic technology refreshment proposals on a case-by-case basis as they come up over the life of the contract. Please provide

comments on these potential approaches and any recommendations for alternative ones.

17) The Government has made a significant investment in developing a Performance Verification Center (PVC) for the purposes of testing software "drops" before they are released. The Government believes that offerors may be able to construct or modify existing capital infrastructure to assume the same functionality of the PVC. What would make this assumption feasible? What would the time period over which the resultant contract would have to operate in order to make this a viable consideration? In this scenario, the Government would provide the current PVC (hardware and software) as GFP ("as is") and expect the Contractor to invest its own capital resources to maintain/replace equipment/software as needed without compromising the functionality and performance capability of the testing environment.

18) The draft EMD Statement of Work does not currently contain the typical list of government required documentation for plans, procedures, specification, data packages, reports, etc. The intent is to have the offerors to include in their proposal a technical approach, which would include combination of existing contractor practices and new process to meet the EMD requirement. It is believed that this approach will provide the best value to the government and minimize non-productive work for the contractor. The technical approach of the successful offeror will be incorporated into the SOW during negotiations. Please provide your assessment on this concept.

19) The government attempted to state the basic requirement (i.e. SOW) for the maintenance of the ECS without directing how the work is to be accomplished. Nevertheless, you may see some parts of the SOW as unnecessarily restrictive or inefficient. Please address any concern or recommendation to ensure a best value to the government and guarantees that the operational needs of the ECS are attained without introducing additional undue risks to the system ops and services.

20) The SOW proposes a joint government/contractor priority board to establish consensus priorities for specific work performed under this contract. Describe any concerns you have with this approach and provide recommendations for how such an approach could facilitate the performance of this contract.

21) The government will provide the “final science system documentation” as part of this contract. Samples of ECS science system documentation are available from the EMD RFI Web site. Describe any impacts that you believe this documentation level may have on the EMD contractor’s ability to perform, and describe the minimal system documentation you would need to effectively perform the work described in the SOW.

22) The government is considering requiring the EMD contractor to work with the science and DAAC communities directly to develop any information or test data needed to perform the work in the SOW. Please describe the risks you see in this

approach and make recommendations for alternative approaches. For alternative approaches, please describe how the approach reduces the government's overall cost and schedule risks.

23) The government plans to provide hardware and software system training from the ECS development contractor. Please describe the level of training you feel would be necessary to transition ECS maintenance in a timely, cost-effective fashion without undue risks.

24) The government is currently examining a concept called "Operational Support Software (OSS)", in which some non-core functionality is developed in an operational prototyping fashion by either the development contractor or other members of the ECS community and the development contractor provides some maintenance support for these tools. The government hopes to leverage this concept to reduce overall system maintenance costs, reduce the time it takes to get operations support tools to the field, and leverage the operational and tool development expertise of the ECS community to reduce overall systems costs. The government is considering adding the OSS concept to the EMD SOW. Please describe the benefits and pitfalls you see with this approach, and provide any recommendations you might have for leveraging it as part of the EMD SOW.

25) GSFC is currently ISO 9001 certified. Please describe your Quality Management System as it relates to process and product control for maintenance and software development activities. Include a list of applicable QMS procedures and guidelines that will be applied to this contract.

26) Attachment D of the EMD SOW describes the ECS hardware and custom/COTS software.
By the time of the release of the Request for Proposals a detailed list of hardware components will be made available. The final list of equipment will not be available until the end of the contract. For the purposes of proposing, please comment on the adequacy of this approach.b) Another consideration is the appropriate method for providing visibility into the ECS software. For purposes of proposing, please describe the minimum information you will require in order to prepare a proposal for the maintenance of the ECS software. For example, are selected samples of code adequate or is the entire set of source necessary. We will be limited to providing code from the most recent released version. The final software package will not be available until the end of the ECS contract in late 2002.

27) Throughout the development cycle of the ECS contract, NASA also had an Independent Verification and Validation (IVV) contractor. All the IVV findings can be made available, although the data is too voluminous to be immediately helpful. Please indicate if you would find IVV data of interest, and the specific information that would be useful in the preparation of a proposal.